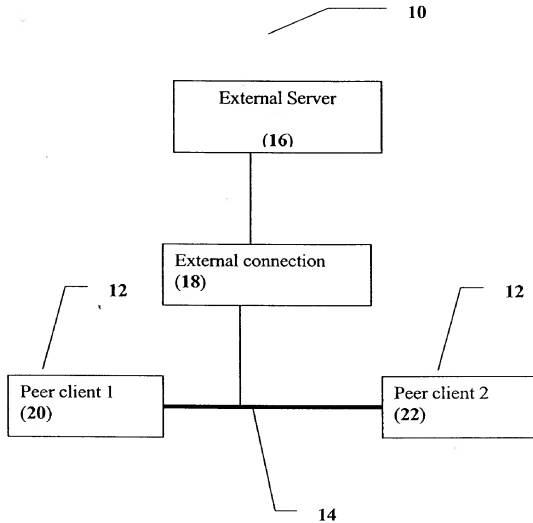


Figure 1A



09817953.032601

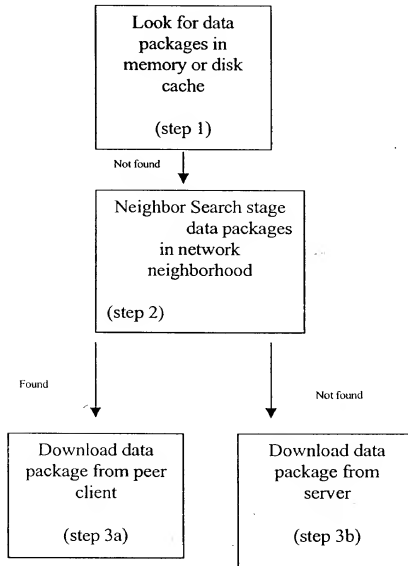


Figure 1B: Downloading process

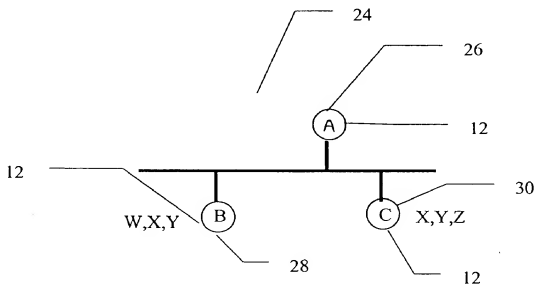
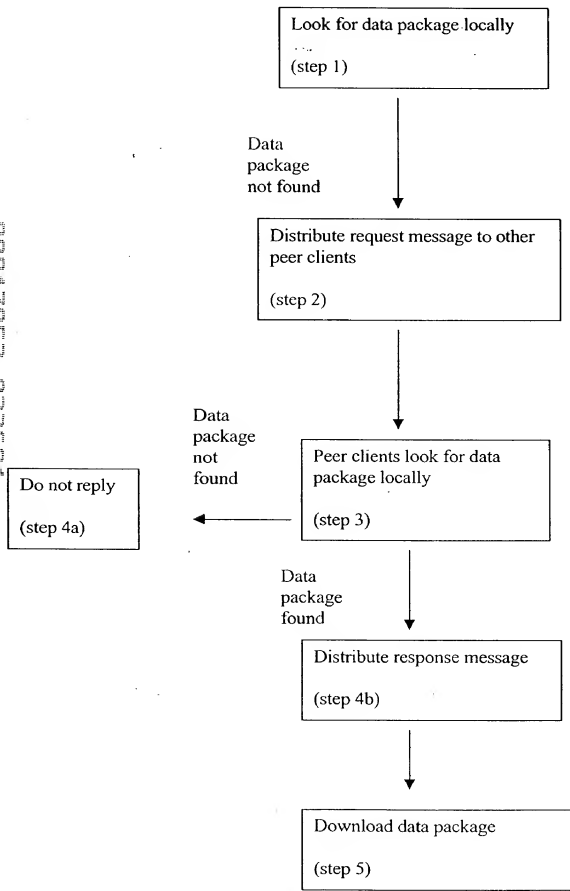


Figure 2A: Request-response example

Figure 2B

109220-55671860



PVN	Digest1, Digest2
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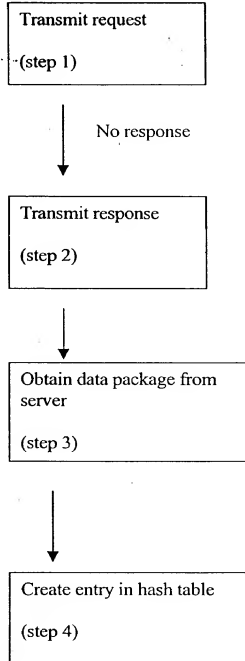
Figure 2C: *request* message

PVN	Digest1, Digest2, ... Digest N	TCP Port
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Figure 2D: *response* message

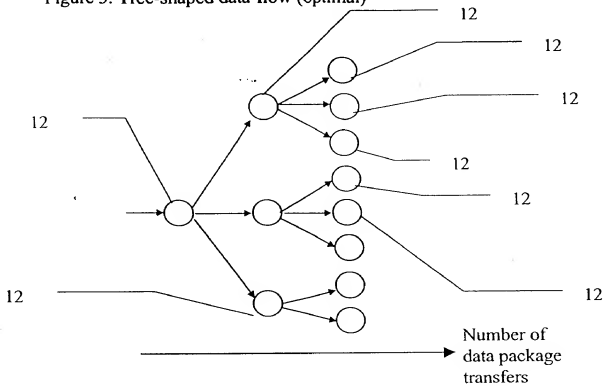
09817953-032601

Figure 2E



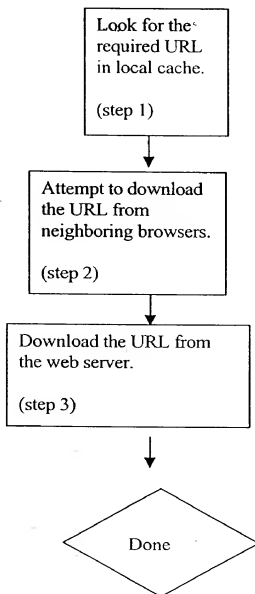
09817953-032601

Figure 3: Tree-shaped data-flow (optimal)



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Figure 4



109220.85671860

Figure 5A

PVN	REQ	URL ₁ , URL ₂ , URL ₃ , ...
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Figure 5B

PVN	RSP	URL ₁ , URL ₂ , URL ₃ , . . .
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